

Appl. No. 10/061,381
Amdt. dated December 8, 2003
Reply to Office Action of October 23, 2003

Remarks

The present amendment responds to the Official Action dated October 23, 2003. The Official Action rejected claims 1, 2, 5-8, and 12 under 35 U.S.C. §103(a) based on Baitz et al. U.S. Patent No. 6,206,285 (Baitz) in view of Joseph U.S. Patent No. 5,635,906 (Joseph) and further in view of Canipe et al. U.S. Patent No. 6,281,796 (Canipe). Claims 3, 4, 13, and 14 were rejected under 35 U.S.C. §103(a) based on Baitz in view of Joseph and Canipe, and further in view of Kane et al. U.S. Patent No. 6,154,135 (Kane). Claims 9 and 11 were rejected under 35 U.S.C. §103(a) based on Baitz in view of Joseph, Canipe, and Kane and further in view of Heptig et al. U.S. Patent No. 5,377,269 (Heptig). These grounds of rejection are addressed below following a brief discussion of the present invention to provide context. Claims 1, 7, and 12 have been amended to be more clear and distinct and to place them in better order for appeal. Claims 1-14 are presently pending.

The Present Invention

The present invention relates to product checkout devices and more specifically to a checkout device including an integrated barcode reader, scale, and electronic article surveillance (EAS) system. Common checkout devices include combinations of barcode readers and scales. One example of such a checkout device is the NCR 7875 checkout device. Another example of a checkout device includes a barcode reader and an integrated EAS system. The present invention recognizes the desirability of producing a checkout device with an integrated barcode reader, scale, and EAS system. Among its several advantages, providing an integrated checkout device

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addresses the problem of collusion between a customer and a store clerk by reading the bar code of an item and deactivating a security label attached to the item in one cognizable step. For example, with the integrated checkout device, there is no opportunity for the clerk to read one item and deactivate the security label associated with another more expensive item.

In accordance with the teachings of the present invention, a checkout device including an integrated barcode reader, scale, and electronic article surveillance (EAS) is provided. The checkout device includes a scale assembly including a base portion and a weigh plate disposed over the base portion. The weigh plate includes an aperture. A barcode reader is located between the base portion and the weigh plate and reads a barcode of an item through the aperture in the weigh plate. A security label deactivation system is also located between the base portion and the weigh plate, and deactivates a security tag affixed to the item after the item has been successfully scanned. In a preferred embodiment, the checkout device is coupled to a point-of-sale (POS) terminal that provides both power and data connections to both the barcode reader and the scale assembly.

The Art Rejections

All of the art rejections hinge on the application of Baitz, Joseph, Canipe, Kane, and Heptig. As addressed in greater detail below, Baitz, Joseph, Canipe, Kane, and Heptig do not support the Official Action's reading of them and the rejections based thereupon should be reconsidered and withdrawn. Further, the Applicant does not acquiesce in the analysis of the

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relied upon art made by the Official Action and respectfully traverses the Official Action's analysis underlying its rejections.

Claims 1, 2, 5-8, and 12 were rejected under 35 U.S.C. §103(a) based on Baitz in view of Joseph and further in view of Canipe. Baitz is entitled "Peripheral Assembly Kit for the Workstation of a Goods Invoicing System." Baitz describes a system which can be utilized as either a self-service terminal or a cashier operated terminal. Among its several failings, as indicated by the Official Action, Baitz does not "teach or fairly suggest that a security deactivation system is installed between the base portion and the weigh plate."

Joseph does not cure the failings of Baitz as a reference. Joseph simply describes a security apparatus which is located near the exit of a retail store to be used to prevent shoplifting. According to Joseph, "[t]he security apparatus verifies that the weight of items purchased in a store corresponds to the amount of weight in the bags containing the purchases, and simultaneously disables the security tags on the items in the bags." This system basically replaces the security guard near the exit of retail stores who manually verifies that a customer's receipt corresponds to the items the customer is attempting to leave the store with. While a cashier is scanning a customer's items to be purchased, the cash register tabulates and stores the total weight of the purchases and prints a slip containing an invoice number with a corresponding barcode. In Joseph's approach, the security tags are not deactivated as they are successfully scanned. When the purchase is completed, the bags are sealed and the customer receives the slip. As the customer exits the store, the sealed bags are placed on a scale and the weight determined. The customer then scans the barcode of the slip, and the security apparatus compares the

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determined weight with the weight stored by the cash register. If the weights agree, the security tags are deactivated and the customer is allowed to leave the store.

In contrast to the relied upon art, the present invention provides techniques for integrating a barcode reader, scale, and electronic article surveillance (EAS) system into a single checkout device. The integrated checkout device includes a weigh plate over a base portion, with the weigh plate including an aperture. A barcode reader is located between the base portion and the weight scale and reads a barcode of an item through the aperture in the weigh plate. A security label deactivation system is disposed between the base portion and the weigh plate, and deactivates the security tag affixed to the item after the item's barcode has been successfully scanned. See Figs. 3 and 4, for example. In contrast, Joseph teaches directly away from the present invention by requiring that a security tag is not deactivated when a purchase is tallied and paid for. See col. 6, lines 47-50 of Joseph, for example. The scanner of Joseph is simply used to read an invoice slip in order to look up the supposed weight of the total purchase as a customer leaves the store. Moreover, the scanner of Joseph is not integrated with the scale and EAS system, as presently claimed.

Among its several advantages, the integration of a scanner and EAS system advantageously addresses the problem of collusion between a customer and a clerk. In a non-integrated system, such as Joseph's, a more expensive item of equal weight may be substituted by the clerk after reading the initial item. For example, an expensive bottle of champagne of equal weight might be substituted for a much cheaper bottle. The clerk would place the substituted item into a bag and then seal the bag. The customer may then take the sealed bag having the

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more expensive item and have it deactivated at Joseph's deactivation system which is positioned at the retail store's exit. Claim 1, as presently amended, recites "a scale assembly including a base portion and a weigh plate over the base portion; wherein the weigh plate includes an aperture; a barcode reader between the base portion and the weight scale which reads a barcode affixed to an item through the aperture in the weigh plate; and a security label deactivation system between the base portion and the weigh plate which deactivates a security label affixed to the item after the barcode is read by the barcode reader, the security label deactivation system integrated within the checkout device" (emphasis added)

Although the Official Action only relied on Joseph at col. 3, lines 13-26 to show that a deactivation system can be underneath or integrated into a scale, it is believed that this reliance is respectfully misplaced. Referring to Fig. 1 of Joseph, a deactivation pad 42 is above and perpendicular to a scale 16. The deactivation pad 42 faces a different plane altogether than the scanner 14 such that scanning the price of an item and deactivating its security label cannot be performed in one perceptible step. Further, although Joseph contemplates an integrated security station, its integrated security station only includes a computer 8, a scanner 14, and a scale 16. Thus, Joseph implicitly recognizing difficulties in integrating a security system. Joseph, col. 4, lines 48-50.

Canipe does not cure the failings of Joseph and Baitz. Canipe describes a non-invasive interface to a POS reader/scanner to an EAS tag deactivator. Referring to Fig. 1, Canipe's approach includes connecting a reader indicator 8 externally to the POS device 2 having a POS reader 6. Although Canipe's system does not disclose how the reader indicator attaches to the

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POS device 2, the reader indicator 8 is signaled on a successful read of an item and outputs an audible or visible signal. An external indicator sensor 12 receives the outputted signal to communicate with a POS interface unit 10 which is also external to the POS device 12. The POS interface unit 10 energizes an external EAS Tag deactivator 18 for a preselected period of time to allow sufficient time for an operator to move an item from the POS reader 6 to the EAS tag deactivator 18 for deactivation of the EAS tag 24. Canipe, col. 3, lines 28-32. The outputted signal also notifies a clerk that a successful read has occurred so that the clerk knows that the external EAS tag deactivator should be operating.

Among its several failings, Canipe's approach, like Joseph's approach, is exposed to the problem of item substitution resulting from collusion between a clerk and a customer. With Canipe's approach, a clerk may scan a first item. Upon a successful read indication and subsequent activation of the EAS tag deactivator, the clerk or the customer may deactivate the EAS tag on a second more expensive item. Canipe's system facilitates such a substitution of a more expensive item because a successful read indication includes either an audible acoustic signal or a visible signal which notifies when to scan the substituted item. See Canipe, col. 3, lines 36-43.

In stark contrast to Canipe, the present invention advantageously addresses the problem of item substitution resulting from collusion between a clerk and a customer. Since the EAS system is integrated within the POS terminal, the successful scan and deactivation are performed in a single swipe of the item across the top of the scanner thereby preventing the clerk from swiping one item and deactivating a more expensive item. If two items are presented to the

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scanner at approximately the same time, they will either both be read and deactivated, or a double read might result preventing either from being scanned or deactivated.

See presently amended claim 12, for example, which recites the steps of:

reading a barcode label on an item moving in a path, which crosses an aperture of a scale weigh plate by a barcode reader between the aperture and a scale base portion;

sending a signal to an interlock by the barcode reader;

enabling a security label deactivation system between the scale weigh plate and the scale base portion and in a downstream position from the barcode reader relative to the path of the item, the security label deactivation system integrated within the checkout device;

detecting a security label on the item by the security label deactivation system as the item moves along the path and crosses the security label deactivation system; and

deactivating the security label by the security label deactivation system.

(emphasis added)

Canipe attempts to address the same collusion problem as the present invention but falls short due to its non-integrated approach. Canipe teaches away from the present invention. As a result of problems with implementing different types of electrical interfaces and the risk of invalidating the warranty of certain manufacturer's POS devices, Canipe rejects an integrated approach in favor of an alternative and less effective approach. See Canipe, col. 1, lines 55-63.

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Unlike Canipe, the present invention overcame these problems recognized in Canipe and produced an integrated checkout device.

Further, it would not be obvious to combine the teachings of Baitz with the teachings of Joseph and Canipe. As detailed above, Joseph teaches that the security system should be located away from the point of sale system and that the security tags should be left enabled after leaving the point of sale area. Canipe teaches a checkout device with a non-integrated deactivation system which facilitates the customer-clerk collusion problem. Such teachings are inconsistent and suggest one would not be led to combine these references in the manner the Official Action suggests. Baitz, Joseph, and Canipe, either separately or in combination, do not teach and do not suggest a checkout device with an integrated EAS system as claimed.

Kane and Heptig fail to remedy the failings of Baitz and Joseph as references. Kane is merely relied upon to show an EAS system which utilizes coils. Heptig describes a system for controlling access to a personal computer. These references do not teach and do not render obvious a system and method for an integrated checkout system as presently claimed.

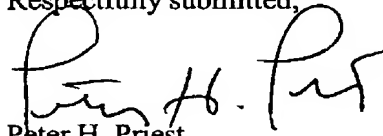
In summary, the claims both as formerly presented and as presently amended are not taught, are not inherent, and are not obvious in light of the art relied upon.

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Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Peter H. Priest". The signature is fluid and cursive, with the first name "Peter" and last name "Priest" clearly distinguishable.

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